DOCUMENT RESUME

ED 201 380 PS 012 100

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TITLE Ready or Not: A Report of the 1979 Statewide Readiness Test Administration and Results.
INSTITUTION South Carolina State Dept. of Education, Columbia.
PUB DATE Oct 80
NOTE 73p.

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Kindergarten Children; Primary Education; *School Readiness Tests; Scores; Standardized Tests; Testing; *Testing Programs; *Test Interpretation; Test Selection
IDENTIFIERS *Cognitive Skills Assessment Battery; Department of Education; South Carolina; *South Carolina Statewide Testing Program

ABSTRACT

The selection, administration and results of a statewide school readiness test in South Carolina are described in this report. As one component of South Carolina's Basic Skills Assessment Program, the "Cognitive Skills Assessment Battery" (CSAB) was chosen to distinguish those children who are ready for the formal first grade curriculum from those who are not and to assist South Carolina teachers in determining the individual developmental needs of each child. The process of establishing a standard or cut-off score for the CSAB is explained. A brief description of the statewide administration of the readiness test and an interpretation of the test scores are given. Statewide results are presented for the total group tested and for subgroups that differed on the variables of sex, educational experience as a 5-year-old, lunch program participation, repeater status, and age. Briefly described in the last section are follow-up activities conducted to: (1) assess local educators' problems with the CSAB; (2) identify changes which occurred locally as a result of the adoption of the state kindergarten objectives and the administration of the first grade readiness test; and (3) survey the key features of local readiness programs planned for 1980-81. Among the appendixes are a list of the state kindergarten objectives and the interview questions and results from the survey of kindergarten and first grade teachers. (Author/JA)

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READY OR NOT

A Report of the 1979 Statewide Readiness Test Administration and Results

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PREFACE

The Basic Skills Assessment Program required that a standard or cut-off score be established that would distinguish those children who are ready for the formal first grade curriculum from those who are not. After the Spring, 1979, pilot test of the Cognitive Skills Assessment Battery (CSAB), the score of 88 was established as that cut-off score. "What does 88 mean?" and "Where did 88 come from?" are two questions that have been asked since the first CSAB statewide administration in 1979. Ready or Not provides the answers to these and other questions of common concern to South Carolina's educators and its citizens.

Essential to any testing program is the educator's understanding of the results both from a group and an individual student perspective. Since group results by themselves are of little value in planning instruction, additional analyses were conducted to investigate differences in students. In seeking to account for differences in the readiness status percentages, several factors were examined. These factors or variables include sex, educational experience as a five-year-old, lunch program status, repeater status, and age. Each of these factors is addressed in Ready or Not in a manner that precludes a reader's need for understanding statistical jargon.

Several follow-up activities were conducted by the Department after the Fall, 1979, CSAB administration and are reported in the last section. First, each of the 585 first grade schools were given the opportunity to share with the Department problems experienced with the testing. Additionally, a survey was conducted to assess changes which have occurred locally as a result of the adoption of the State Kindergarten Objectives and the administration of the first grade readiness test. Following the results of this survey, several key features of local readiness programs that have been planned for the 1980-81 school year are briefly described.

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INTRODUCTION

Why a Readiness Test Was Selected

Every child entering school is like no other child entering school. Each first grader is different and has different needs based on his/her developmental background. Some children have gone to kindergarten; whereas, other children have had no formal preschool experience. Some have parents who have read to them every night; others have never seen a book. Some can use a pencil; others cannot even hold a pencil. Some can attend to a 5 to 10 minute task; others are easily distracted within a few seconds. Some can follow a series of directions; others must be told only one directive at a time. The child's home surroundings, preschool experiences, and development (maturity) all contribute to what a child can and is ready to learn at the beginning of the first grade.

The Cognitive Skills Assessment Battery (CSAB) is a readiness test that is administered individually to all South Carolina children entering the first grade. The purpose of this "test" is to assist South Carolina teachers in determining the individual developmental needs of each child. The CSAB is one component of the Basic Skills Assessment Program which was passed by the South Carolina legislature in August, 1978. In particular, Section 1(b)(1) of the act (Act 631) states that the State Board of Education, through the State Department of Education, shall:

> Establish a state basic skills assessment program that shall include the administration to all public school students at the beginning of grade one a readiness test that will be designed to measure a student's readiness to begin the formal school curriculum. The results of the test shall be used to provide appropriate developmental activities in first grade.

Thus, the Department was charged with the responsibility of selecting a readiness test designed to provide information

not only relative to where the child is on the readiness continuum but also relative to what developmental activities are needed by the child.

How a Readiness Test Was Selected

To carry out this legislative requirement, the Kindergarten Committee members who had also assisted in the Kindergarten Objectives identification process were again called upon to assist the Department in the selection of the readiness test. (Refer to Appendix A for a list of Kindergarten Committee Members.) This committee consisted of early childhood and measurement specialists from the Department and from South Carolina schools, districts, colleges, and universities.

The 18 State Kindergarten Objectives adopted by the State Board of Education served as the basis for selection of the readiness test. (See Appendix B for a copy of the objectives.) However, only the 13 objectives that were neither attitudinal (affective) nor social-emotional in nature were the focus of measurement. The remaining five objectives could most appropriately be assessed in the classroom by the child's teacher during the first weeks of school.

The readiness test review process required two separate readiness test submissions by publishers. Prior to review by the Kindergarten Committee, seven tests were rejected by measurement, early childhood, and curriculum specialists at the Department based on a check for coverage of the Kindergarten Objectives, difficulty level, technical quality, and the extent to which the test could be modified.

Many tests, both group- and individually-administered, were reviewed by the Kindergarten Committee. The committee reviewed 14 tests of the 21 tests submitted by test publishers and rejected 13 in favor of the CSAB. (See Appendix C for a list of readiness tests reviewed.) The primary reasons for rejection of the 13 tests included the following.

1. Inadequate Coverage of the Kindergarten Objectives: The percentage of State Kindergarten Objectives covered by the test questions was not considered adequate, typically less than 75 percent coverage. This percentage was based only on the 13 State Kindergarten Objectives that were considered neither attitudinal nor social-emotional in nature. The CSAB covered 12 (92 percent) of these 13 State Kindergarten Objectives. Although a particular test may have had a large number of relevant test questions, these questions may have only covered two or three of the objectives. In such cases, the coverage was considered inadequate.

2. Poorly Formatted Examiner's Manual: The format of the manual made the oral administration to the student awkward and confusing.

3. Confusing Administration Instructions to Students: The measurement of the skill area was clouded because of confusing instructions to the student, including such things as (1) inadequate repetition of the questions to the student, (2) awkward ordering of the administration instructions and the test questions, and (3) wordiness.

4. Overall Difficulty Too High/Low: The test was either too hard or too easy for entering first graders with varied educational experiences as five-year olds.

5. Contained Unclear Test Questions: Many test questions were unclear as to which readiness skill was being measured.

6. Poor Formatting of Test Questions: The formatting of the test questions was poor because of too many items per page, very small print size, graphically unclear pictures, and/or very small response bubbles.

7. Greater Than Three Response Options: More than three response options was considered inappropriate for entering first graders.

8. Test Flexibility: A primary consideration was the extent to which the published test could be modified to suit South Carolina's needs. Many of the test publishers would allow only very slight modifications. Given the Department's time constraints, tests that required extensive modifications were undesirable. Also, if costs associated with supplemental materials were prohibitive (e.g., polaroid camera or balance beam), such tests were considered inappropriate.

9. Individually-Administered Test: The individually-administered test was viewed as being more beneficial to the teacher and the child. Although many group-administered tests were initially considered, the committee felt that group-administered tests would not benefit either the child or the teacher to the extent that an individually-administered test would. In considering individually-administered tests, financial costs and logistics were major determinants since the test was to be administered statewide.

Why the CSAB Was Selected

The CSAB was unanimously selected by the committee as the test most representative of the end-of-year South Carolina Kindergarten Objectives and the one that could be most feasibly administered statewide. With the test easel placed properly between the teacher and child, the teacher could conveniently read the questions while the child viewed the corresponding pictorial material. As the child responded by speaking, pointing, printing, or copying, the teacher could complete the child's Pupil Response Sheet.

Viewed equally as important by the committee was the one-to-one contact between teacher and child during the CSAB test administration. The teacher would have 25 to 30

minutes of uninterrupted time with each child at the beginning of the school year. Through such individual contact, the teacher would learn more about the child than he/she could ever learn from test scores alone, including such things as the child's verbal ability, attention span, and ability to follow directions. Thus, the individually-administered CSAB had the advantage of providing the teacher not only with the same test scores as a group-administered test but also with individual student information derived from the one-to-one contact.

The CSAB was field-tested in the Spring of 1979 on a statewide sample of public kindergarten students. Based on the field-test results, the test was revised for use in South Carolina. The Department provided each first grade teacher with the revised CSAB Test Easel, First Edition, and the accompanying CSAB Teacher's Administration Manual. The Fall, 1979, administration of the CSAB constituted the first statewide assessment conducted under the provisions of the 1978 Act 631 (Basic Skills Assessment Program).

What the CSAB Measures

The CSAB consists of two parts which include 87 test questions. The first part consists of 79 questions to which the child responds. The second part consists of eight questions which require teacher observations of the child during the actual testing.

By administering the CSAB, the teacher gains readiness information for each child on 12 of the 13 State Kindergarten Objectives which served as the basis for test selection.

Objective 1: Gross Motor Skills
Objective 2: Fine Motor Skills
Objective 3: Visual Memory
Objective 4: Visual Discrimination
Objective 5: Auditory Memory
Objective 6: Auditory Discrimination
Objective 7: Expressive Language

Objective 8: Receptive Language
Objective 10: Classifying
Objective 11: Comparison
Objective 12: Sequencing
Objective 14: Interpreting

The number of test questions measuring each of these objectives varies. In some cases, the same question measures more than one objective. Objective 13, Conservation of Numbers, was not considered by the Kindergarten Committee to be adequately measured on the CSAB.

The remaining five State Kindergarten Objectives are more appropriately measured by teacher observations of the child in the classroom.

Objective 9: Interest in Language
Objective 15: Emotional Control
Objective 16: Positive Self Attitude
Objective 17: Positive School Attitude
Objective 18: Social Interaction

The last eight questions on the CSAB, "Response During Assessment", provide some information on these five objectives. However, full assessment of these six objectives, as well as the other 13 objectives, requires the teacher to watch the child while at work and at play with other children during the first days of school. Only by doing so can teachers gain additional information on such things as whether or not a child

... is ready to begin formal instruction;
... is ready to learn about numbers and letters;
... is responsible for his/her belongings;
... likes being in school; and/or
... works cooperatively with other children.

THE READINESS CUT-OFF SCORE

Where 88 Came From

The Basic Skills Assessment Program additionally required that a standard or cut-off score be established for distinguishing those children who are ready for the formal first grade curriculum from those who are not. In establishing the cut-off score, only 75 of the 79 teacher-administered CSAB questions (Part I of the test) that most closely matched the end-of-year Kindergarten Objectives were used. The highest possible total score on these 75 questions was 117. The score of 88 out of the total 117 points was determined to be the cut-off. This cut-off score of 88 was not simply "pulled out of the air." Rather, a statistical procedure that took advantage of the teacher's knowledge of the child was used to determine which score to use as an indicator of a child's readiness for first grade.

In Spring of 1979, the CSAB was field-tested on a sample of South Carolina kindergarteners. Seventy-five teachers who had known their children for an entire year judged each child as to whether or not the child was ready to begin the formal school curriculum in the first grade. Each child was classified by the teacher as:

1. Ready,
2. Not Ready, or
3. Undecided.

The judgments were based purely on the teacher's experiences with the kindergarten child during the 1978-79 school year. The CSAB was administered after all judgments had been received from teachers. The 88 cut-off score was that score for which the readiness test and teachers classified the most children consistently or, in other words, that score for which there was the smallest number of inconsistent decisions with respect to a child's readiness status.

A comparison of a child's CSAB score to the score of 88 determined the readiness classification for that child. A child scoring below 88 was classified as "not ready"; a child scoring at or above 88 was classified as "ready". Remember that 88 is not a magical score in that no single score is the key to readiness for all children. A child with a score of 88 may be "ready" on some objectives but "not ready" on others. Hence, the child's score should not be the sole determinant of whether or not a child needs additional help.

What 88 Really Means

The setting of the 88 cut-off score posed an especially difficult problem to solve because of the developmental nature of each child. Children progress at different rates depending on their preschool experiences and development. Consequently, a child who might be judged "not ready" by the test on the fifth day of school might be considered "ready" by the end of the second week of school. Suppose Tommy was classified as "not ready" based on his test score. Tommy could, in fact, be ready to begin first grade work but might simply need additional developmental activities in several readiness areas or just need time to become more comfortable in his new environment. In contrast, suppose Sally was judged to be "ready" by the test. She may have done well on the test in the one-to-one situation with her teacher; but Sally may still not be ready to work with other children in group situations.

Therefore, after a child takes the CSAB, administrators, teachers, and parents should be very careful not to attach a label to the child. Development of a positive self-concept in a young child is crucial. Negatively labeling a child in the early school years may possibly be inaccurate and may also serve as a detriment to learning in later years.

Thus, the 88 cut-off score does not mean instructionally that children who scored at or above 88 are necessarily "going to set the world on fire" nor that children who scored below 88 are necessarily "not going to set the world on fire". Some of the children who scored 88 or above may

still need more time to acquire certain readiness skills. Likewise, some children who scored below 88 may need very little time to acquire the readiness skills.

Then, what does a score of 88 really mean? This score simply means that there is a pretty good chance that a child scoring below 88 on the CSAB is "not ready" for first grade in some way at the time of test administration. The score is not absolute. During the first days of school, a teacher must couple what she has learned about the child from the test, together with what she sees the child do in the classroom. Based on these two types of information, the teacher is in a much better position to determine where the child is developmentally and what appropriate developmental activities must be provided the child.

Therefore, the cut-off score of 88 should be viewed as simply a rough indicator of a child's readiness to begin first grade activities and not an absolute indicator used to label a child. Remember that tests are tools. A test is not an end in itself but a means to an end.

STATEWIDE ADMINISTRATION PLAN

How Training Was Done

The administration of the CSAB to individual children posed logistical problems both at the State and the district levels. Since the Fall, 1979, CSAB administration was the first statewide assessment, all teachers needed training. Additionally, since the CSAB is an individually-administered test, districts were faced with the problem of what to do with children not being tested.

To address the problem of training, the Educational Assessment Section (Office of Research) assisted by the Curriculum Development and School Services Sections (Office of General Education) utilized five teams to conduct 20 regional workshops during the period of August 13-17, 1979. Administrative support at the district and school levels and thorough training of teachers were seen as crucial if the readiness program was to succeed. Therefore, the workshops were designed for the following participants from each district:

- one first grade teacher from each school involved in the readiness testing;
- the principal of each school involved in the readiness testing;
- the district test coordinator; and
- three district level staff designated by the district superintendent.

Each first grade teacher was provided a stipend of $50 to defray expenses and provide some incentive for workshop attendance. To supplement the training, the Department provided each district with a videotape which consisted of three parts:

Part I - Background on the CSAB;

Part II - Actual Administration of the CSAB to a child (Scoring Exercise); and

Part III - Discussion of the Scoring.

Through the use of Department training guides and the videotape, districts provided training to all first grade teachers in the district.

What Recommendations Were Made to Districts

The logistical problems associated with administering an individualized test on a statewide basis were those of most concern to local personnel. In the past, districts had typically administered group tests in first grade, as well as in other grades. Consequently, during the Summer of 1979, the Department was bombarded with telephone calls from administrators and teachers with questions about the test administration. With local concerns in mind, the Department was attentive to developing procedures for statewide administration that could be easily adapted to the special needs of any South Carolina district.

Districts were provided with flexible guidelines for scheduling the test administration. The specific dates for testing were left to the discretion of each district. The only requirement was that testing be completed in each district not later than the end of the first 15 days in which any first graders were in attendance in the district. The CSAB was to be administered by the child's classroom teacher, that is, the teacher to whom the child would be assigned for the entire 1979-80 school year. The benefit of the one-to-one contact between teacher and child would be lost if someone other than the child's teacher administered the test.

The Department provided limited funds for paying substitute teachers to attend to children who were not being tested. Additionally, the Department provided districts with several alternatives for meeting specific needs:

Staggered Attendance - The Department suggested that possibly five days be allowed for the teacher and child to become familiar with each other so that the child would feel comfortable in the testing situation. All children would attend class during these days. However, after the first several days, only the number of students that the teacher could test that day (approximately six) would attend school.

Optional Procedures - Districts were free to utilize other procedures that better suited their local needs and/or conditions. Suggested options were to: (1) utilize parents or volunteers to assist with supervision of students not being tested and (2) administer the test prior to the beginning of school.

Districts could use any of the options recommended or other suitable alternatives. The only requirements were that:

1. the testing be completed by the end of the fifteenth day that any first graders were in attendance, and

2. the test be administered by the child's first grade teacher.

After the first statewide assessment in Fall, 1979, the Department received very positive comments from districts. Those districts which had expressed some of the most grave concerns in Summer, 1979, reported that they had worked out the logistics and individualized testing was, therefore, possible on a large-scale basis. Some of the most favorable comments were from teachers. Teachers reported that from their testing with the CSAB they had learned in early September what they typically could not have learned about the child until October or November.

Who Participated

All public schools containing first grade classes in South Carolina's 92 districts participated in the CSAB readiness assessment. A total of 48,525 first grade children in 585 public schools were administered the CSAB. Handicapped

children were tested unless their Individualized Education Program (IEP) indicated that such testing was inappropriate for the child.

Of the first graders tested, approximately 56 percent were white; 43 percent were black; and 1 percent were of other ethnic origins. Additionally, approximately 52 percent of the first graders tested were males; and 48 percent were females.

INTERPRETATION OF SCORES

How to Look at the Results

As pointed out previously, the 88 cut-off score is but a single indicator of a child's readiness to begin formal instruction. The purpose of the test score is to provide a clue as to the child's readiness status for the planning of instruction and/or the implementation of appropriate developmental activities. In a very real sense, this score represents a starting point.

Understanding that the cut-off score is merely an indicator of readiness, someone may logically ask, "How accurate an indicator is it?". The accuracy of an indicator lies in the way it (the cut-off score) was established. In the sense that this score represents a consensus of teacher judgments about student ability, the 88 represents a point below or above which there is a pretty good chance that the child's readiness score accurately reflects his/her readiness. There are a number of factors, however, that may cause the student's score to be somewhat inaccurate. In other words, as some teachers have already reported, some "ready" students turn out to be "not ready" and vice versa. All of this is to say that test score interpretation should not be made in a vacuum but with consideration given to those factors that could affect the accuracy of the child's score.

What Factors Affect Test Scores

There are several factors associated with individual testing that must be taken into account in the interpretation of these test scores. Essentially, some caution must be exercised when interpreting scores due to the effects of (1) the test administrator, (2) the individual child, (3) test administrator's knowledge of the child, (4) the testing environment, and (5) the test itself.

The Test Administrator

One factor which relates to the accuracy of test information is the test administrator who, in the case of the CSAB, is the first grade teacher. The prerequisite for test administration is that the administrator be "qualified" to do the testing. "Qualification" in this sense relates to the teacher's pretest preparation in becoming familiar with the test.

The Fall, 1979, statewide administration was the first year of testing. The newness of this type of testing to the teacher may have resulted in some inaccuracy. As the test administrator becomes more experienced over subsequent years of statewide administration, these types of errors should decrease. Each teacher will gradually become more confident in his/her ability in this type of situation. However, each year, new inexperienced teachers will be involved in the testing. Errors due to new teachers and uncontrollable factors (such as fatigue and room temperature) which can affect the test administrator will not necessarily decrease as testing experience increases. Consequently, some inaccuracy will always exist in test scores as a result of the test administrator.

The Individual Child

Since each child has unique characteristics, each child will react somewhat differently to the testing. A child may "feel bad", may have a very short attention span, may not have the ability to listen carefully to the test instructions, or may tire very quickly. For example, South Carolina teachers reported that children tested in the afternoon tended to perform less well because of fatigue. Such factors can influence a child's test performance. On a "good day", a child may do very well. However, on a "bad day", that same child may not do as well. In other words, the test score for a child who had a stomachache during testing should not be taken as gospel. For these reasons, all behaviors which are exhibited by the child during the testing situation should be noted by the teacher since such behaviors could be useful in test score interpretation.

Test Administrator's Knowledge of the Child

Another source of test score inaccuracy is how familiar the test administrator is with the child. In the case of the CSAB, a child who is comfortable and relaxed with the teacher in the testing situation may tend to perform better than a child who is uncomfortable with the teacher and anxious about taking a test for the first time. For this reason, the time that a teacher has for getting to know the child can affect the child's test performance. There is little doubt about the increase in the teacher's understanding of the child's developmental, social, and cognitive nature after several weeks of classroom experience. However, by the time of testing, the teacher may have had the child in her class for less than one week. Because the teacher's familiarity with the child is important, districts should give consideration to this factor in deciding on their administration plans.

The Testing Environment

Just how much effect the testing environment has on student scores is unclear, but it does appear to have some effect. South Carolina teachers indicated that lack of appropriate spaces for testing and distracting noises encountered during testing may have had some effect on student performance. The reality of the school setting is, however, that in some instances testing will occur in less than adequate circumstances. Local administrators and teachers, then, must be aware that these conditions will have some effect and, therefore, should be taken into account in the test score interpretation.

The Test

Given that the test administrator, the individual child, the test administrator's knowledge of the child, and the testing environment have some effect on test scores, the test itself is also a source of error in the test scores. A test is fallible. Put another way, the test score is used to make an inference about some behavior and is not error free.

The one-to-one testing situation culminates in a single score for the student. This score is merely one piece of evidence that provides limited insight into the child's developmental, social, and cognitive nature. To base instructional planning on this one bit of data would be an error. A child behaves differently in a one-to-one setting than he/she does as a member of a small group or class. Obviously, a test score is equivocal. In other words, that score may not be reflective of the child's "true" readiness but rather of the child's temporary behavioral/emotional or physical status, of an unusual testing condition, of the child's previous experience with testing, or of other numerous factors that are not directly of interest.

Because of the error associated with a test, any interpretation of a score should be undertaken with some degree of caution. For students scoring at the extreme ends, that is, either very high or very low, these students' readiness or non-readiness for formal instruction is more certain. However, there is a group of students for which interpretation can be highly uncertain. This group consists of students who score just above or just below the 88 cut-off score. Children in this "gray area" must be considered carefully in determining appropriate instructional activities or in providing additional diagnostic testing.

What Other Information Is Needed

In interpreting CSAB test scores, the aforementioned factors must be considered. The test score, together with other key pieces of information about the child, form the basis of a complete readiness profile. These essential ingredients are background data concerning the student.

Interpretation of the student's score must be based on the test score, together with other data, such as, observations of the child's behavior within the classroom, health records, preschool records, etc..

Perhaps the need for other information is best highlighted by South Carolina teachers' comments. After the Fall, 1979, administration, teachers reported that some

children who scored 88 and above were not suited for group instruction; similarly, other children who scored below 88 turned out to be some of their best students. The combination of test score, teacher judgment, and other information about the child should provide the basis for instructional planning, not a test score alone.

What Types of Results There Are

The results of the statewide administration of the CSAB are reported in terms of group scores (State, district, school, and classroom) and individual student scores. Furthermore, both group and individual results can be looked at both globally and specifically for certain areas. In the case of the CSAB, there are (1) overall test results based on the CSAB total battery score and (2) by-objective results based on the scores on each of the 12 State Kindergarten Objectives measured by the CSAB. The value of such test results lies in the educator's ability to translate them into instructional improvement strategies.

The only level at which meaningful instructional implications for individual students can be derived is through the use of an individual student profile, together with by-objective results. As mentioned previously, what the teacher knows about the child, together with the child's test score, makes up such a profile. This is not to say that State, district, school, and classroom level information are not meaningful but that these results are for different purposes.

Therefore, by-objective results have not been reported in Ready or Not because, without the relevant information about the individual child, an interpretation of such results is meaningless. However, the use of by-objective results is appropriate for use by the classroom teacher in determining a readiness profile of each child.

Group results are not for determining an individual child's strengths and weaknesses. Group results do, however, provide the context or framework for planning instruction

for individual students. The educator must be mindful that group interpretations merely form a nucleus, a profile of the group, around which instruction for the individual student can be planned. There cannot be enough stress given to the need for planning for the individual student. This is not to say that planning for the group is not important because it is. Some areas of readiness development and instruction lend themselves to group activities, but some areas necessitate concentration on the individual because the individual differs from the group developmentally, thus, requiring different materials and methods.

Historically, many instructional programs have been designed for large groups of children based on the assumption that most of the students will benefit because most of the students are "ready". There are, however, indications that, while students, as a group, may demonstrate readiness, some individual students in the group are not as ready as others.

Perhaps an example would make this point a little clearer. CSAB test questions designed to measure readiness in visual discrimination use both letter and picture discriminations as visual cues to assess the student's visual abilities. Some children may be better at letter discriminations, while others are better at picture discriminations. If most of the students in the class indicate a need for more work in letter discrimination, then the teacher may choose to plan large group activities for these students followed by small group or individual student activities. On the other hand, if only a very few students need assistance, the teacher may choose to plan individual sessions for these students; while the other students are involved in large group activities. In either case, the selection of the activities must be appropriate to the child and where that child is developmentally.

STATEWIDE RESULTS AND IMPLICATIONS

What Is in This Section

The purpose of the following sections is to provide readers with what the statewide (group) results imply. The statewide results can only provide decision makers with a descriptive picture of performance. As already pointed out, many factors can influence test scores. Over the period of the next several years as trends appear in the results, more accurate implications can be made with respect to instructional planning at the State and district levels. Since the Fall, 1979, CSAB results constitute the baseline year, the picture is incomplete.

The test results in subsequent sections were derived from all entering first graders who were tested with the CSAB in Fall, 1979. First, the overall results are presented for all students tested. The overall results are followed by the results for subgroups of students. A subgroup is comprised of individuals that share some common attribute(s), such as the same sex. Other than this common attribute, the individuals making up the subgroup may differ markedly from one another on other characteristics, for example, home background, prior learning experience, etc..

The results in this section are mainly reported in terms of percentages of students classified as:

1. "ready", scored 88 or above; or

2. "not ready", scored below 88.

The percentages presented in the graphs for subgroups are based on the number of students classified in that subgroup at the time of the Fall, 1979, CSAB administration. For example, the percentages for "ready" and "not ready" girls should sum to approximately 100 percent. Because of incomplete or missing data, the percentages will not always sum to exactly 100 percent. Do not forget that subgroup results obscure individual differences.

How Students Performed Overall

The statewide percentages of students classified as "ready" and "not ready" are presented in Figure 1.

From the figure, observe that over half (60.2 percent) of South Carolina's first graders were considered "ready" to begin formal first grade instruction. Less than half (37.7 percent) were considered "not ready".

Can we say that this is good or bad? Placing a value judgment on results of this type is very difficult because of individual differences. Initially, we may think: "Instructionally, shouldn't we try to get 100 percent of South Carolina's children 'ready' by the time they enter first grade?". To attempt such a goal would be to ignore the fact that children develop at different rates and, consequently, may not be "ready" to learn a particular concept until after the beginning of first grade.

As districts incorporate the State Kindergarten Objectives in their early childhood and kindergarten programs and as a larger proportion of the State's kindergarten eligibles are enrolled, perhaps the State may realize some increase in the percentages classified as "ready". However, remember that achieving 100 percent is both unrealistic and unobtainable from a developmental perspective.

In seeking to explain differences in the readiness status percentages, several factors were examined. These factors or variables include sex, educational experience as a five-year-old, lunch program status, repeater status, and age. Information on each of these variables was collected at the time of testing from the first grade teachers. Each of these factors is addressed in the remainder of this section of the report.

How Boys and Girls Performed

In Figure 2, the percentages of kindergarten students classified as "ready" and "not ready" are given for girls and boys.

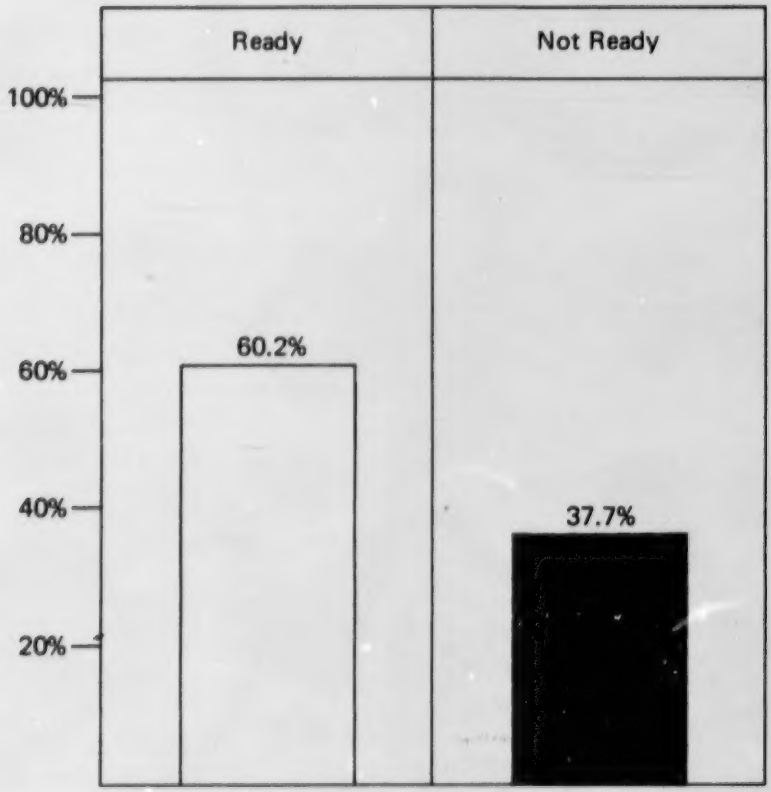

Figure 1*

Statewide Percentages by Ready Group

All Students

*NOTE: Percentages do not sum to 100% because of incomplete data.

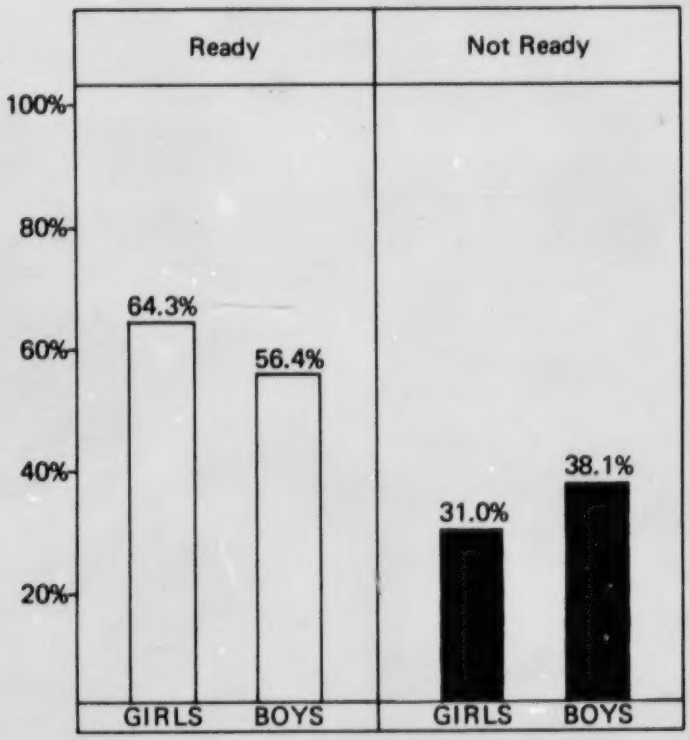

Figure 2*

Statewide Percentages by Ready Group for Sex

All Students

*NOTE: Percentages do not sum to 100% because of incomplete data.

Of all girls tested in the fall, 64.3 percent were classified as "ready"; and 31.0 percent were classified as "not ready". In contrast, of all the boys tested in the fall, 56.4 percent were classified as "ready"; and 38.1 percent were classified as "not ready".

Note that approximately 8 percent more girls than boys were classified as "ready". Is this unusual? This question is relatively easy to answer because of the existing research. In general, research indicates that girls develop earlier than boys; therefore, sex differences in the South Carolina results are not unexpected.

How Students with Various Educational Experiences Performed

The statewide percentages for educational experience as a five-year old are presented in Figure 3.

The results indicated that 61.9 percent of the students attending public kindergarten, 79.2 percent of the students attending private kindergarten, and 39.2 percent of the students attending Head Start programs as five-year olds were classified as "ready".

Approximately 17 percent more students were classified as "ready" for private kindergarten than for public kindergarten. The difference between the public "ready" and the no experience "ready" students was approximately 29 percent, and the difference between the private "ready" and the no experience "ready" students was approximately 46 percent. The comparison of Head Start Program attendees to kindergarten (public or private) attendees revealed the largest differences among students with formal educational experience as five-year olds. Approximately 23 percent more public kindergarteners and 40 percent more private kindergarteners than Head Start attendees were classified as "ready".

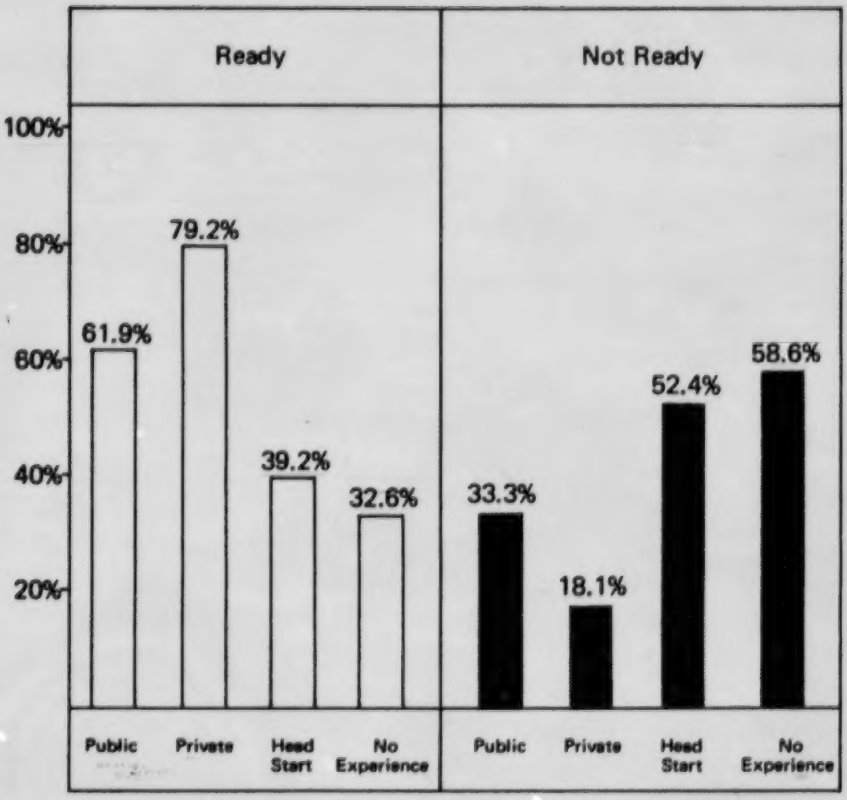

Figure 3*

Statewide Percentages by Ready Group
for Educational Experience as a Five-Year-Old

All Students

*NOTE: Percentages do not sum to 100% because of incomplete data.

Based on these results, a conclusion regarding the quality of public kindergarten versus Head Start would not be well-founded. Too many other factors such as parental socio-economic level are confounded with program quality to make such a judgment.

What is of primary interest is the general discrepancy between "ready" children who have had some formal kindergarten experience and "ready" children who have had no formal educational experience. Whether or not a child goes to kindergarten, public or private, does seem to be related to readiness. Therefore, the public and private kindergarten results suggest that a concentrated effort at the State, district, and school levels to enroll children in kindergarten programs would be a good investment.

How Students in Various Lunch Programs Performed

The statewide percentages for subgroups of students in the various lunch program categories revealed interesting results, as indicated in Figure 4.

The results indicated that 76.1 percent of first graders not on any lunch program, 61.8 percent on reduced-price lunch programs, and 42.6 percent on free lunch programs were classified as "ready".

The most obvious difference was between the "ready" students who were on free lunch programs and the "ready" students who either were on no lunch program or were on reduced-price lunch programs. The difference between the free lunch "ready" students and no lunch "ready" students was approximately 33 percent. The difference between the free lunch "ready" students and the reduced-price lunch "ready" students was approximately 19 percent. In fact, the reduced-price subgroup with 61.8 percent "ready" was very close to the overall statewide percentage of 60.2 percent "ready". The reduced-price lunch subgroup seemed to represent a cross-section of the State's children. In other words, as compared to the other two lunch subgroups, the reduced-price lunch subgroup seemed to represent a more

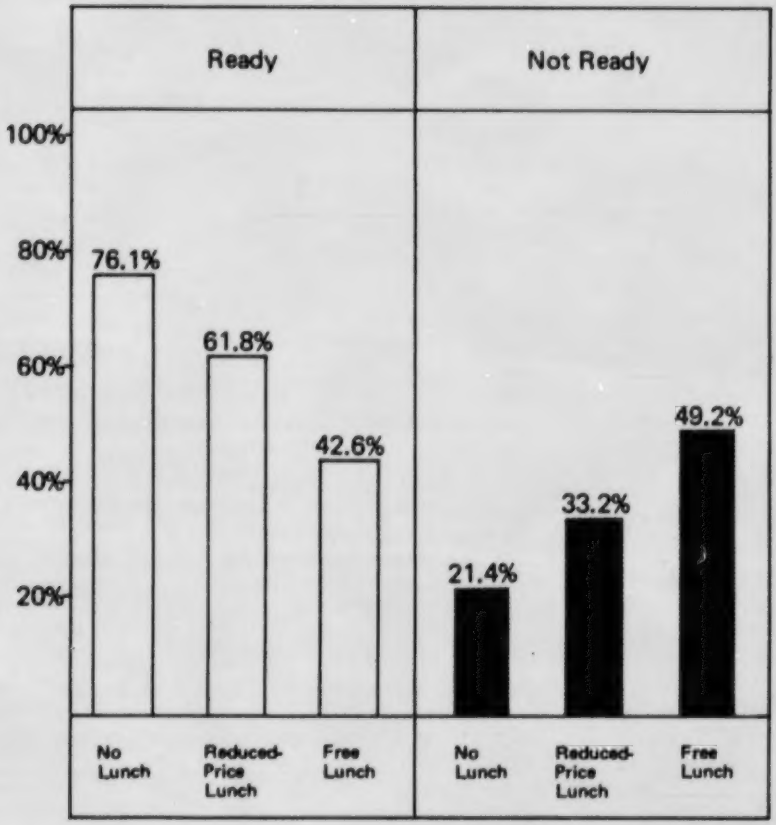

Figure 4*

Statewide Percentages by Ready Group for Lunch Program

All Students

*NOTE: Percentages do not sum to 100% because of incomplete data.

heterogeneous group of students. Consequently, the similarity of this subgroup's results to the State's results was not surprising.

If lunch program is viewed as a socio-economic indicator, the results indicated that there may be a socio-economic factor embedded in the results. Furthermore, in terms of readiness, children on free-lunch programs seemed to be a very different subgroup relative to children in the other two subgroups.

The focus of the explanation for this variable, however, should probably be on the type of background implied for the child by this variable rather than on the financial aspect. A variety of situations may exist in the families of children on free lunch programs.

1. There may be only a single parent who works and/or takes care of the home.

2. Prenatal care may be lacking.

3. The children may be undernourished.

4. The children may have had little or no exposure to books, puzzles, and other materials or activities that would contribute to readiness development.

Although the financial aspect may contribute to explaining the observed difference, any one or any combination of these situations or related situations may be the actual causal factors. Therefore, educators should be cognizant of such existing factors when the child enters school and be ready to meet the needs of these children.

How Non-Repeaters and Repeaters Performed

The percentages of students classified as "ready" and "not ready" for children who did and did not repeat first grade are presented in Figure 5.

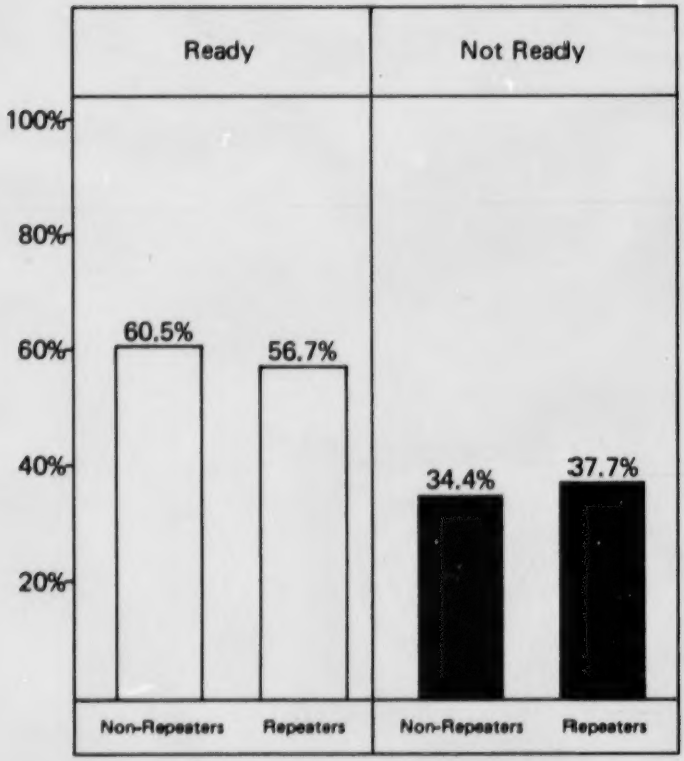

Figure 5*

Statewide Percentages by Ready Group
for Repeater Status

All Students

*NOTE: Percentages do not sum to 100% because of incomplete data.

What is of interest for instructional planning is not the percentages for non-repeaters but the percentages for repeaters. For the subgroup of children who had a full-year (1978-79) of first grade experience, approximately 38 percent were still considered as "not ready" for first grade work in the Fall of 1979.

Typically, a child who was a repeater was probably "not ready" for first grade the prior year. Placing a child in the formal instructional sequence when the child is "not ready" may do the child more harm than good. In fact, such a situation may cause problems or perpetuate existing problems. Such a child may not have the necessary foundation either because the child was not exposed to the necessary developmental activities or perhaps because the child was not exposed to such types of activities for a long enough period of time. Some children could conceivably need a whole year of readiness activities.

What should districts do for repeaters? Several steps are offered for consideration.

1. Determine what types of educational experiences the child has had:

   . . . prior to first grade,
   . . . during first grade, and
   . . . at home.

2. Note the types of materials, methods, and activities used with the child in prior experiences.

3. Conduct a parent-teacher conference to learn as much as possible about the child's background.

4. Based on all knowledge gained, provide the child with developmental activities using:

   . . . different materials,
   . . . different methods, and
   . . . different activities.

5. If warranted, refer the child for further testing. The child could have physical or emotional problems that the first grade teacher was not aware of at the time of testing.

6. Insure that the child is provided a new first grade program based on his/her specific needs during the second year to maximize the possibility of providing the child with a new perspective on learning. The message is that the child should be given a new and different start. A repetition of the same instructional program will not benefit first grade repeaters to the extent possible.

The 38 percent (or 1,865) of South Carolina's first grade repeaters who were classified as "not ready" need to have a new start. Educators should be cognizant of this in their future instructional planning.

How Non-Repeaters of Different Ages Performed

In developmental theory, many skills are viewed as being acquired naturally as part of the maturation process. The area of gross motor skills provides some good examples: the abilities to clap hands, to hop on one foot, or to skip on alternating feet appear to be somewhat dependent upon age.

To understand the effects of age, particularly with respect to instructional implications, first grade students of various ages were studied. Only those students, however, who were classified by the teacher at testing time as "non-repeaters" were considered eligible for this analysis. For purposes of this analysis, a further restriction was placed on the non-repeater subgroup: in addition to being classified as "non-repeater", the student also had to be at or between the ages of 5 years 10 months and 6 years 10 months. These age limits represent what was considered to be a reasonable age range for a first grader entering school for the first time. Therefore, results in this section are not based on the total group of non-repeaters included in the previous section because of the age criterion.

Since the overall state results indicated that sex and lunch program status were related to readiness, these two variables were used in studying the age factor. Furthermore, sex is considered to be highly related to the developmental process in children. In addition to appearing related to total readiness score, the lunch program variable was considered to be a fairly "clean variable", in the sense that lunch data were on record for every student. This situation did not necessarily exist with other important variables such as educational experience as a five-year-old.

Non-repeater first graders, as defined, were grouped according to the two sex subgroups and the three lunch program subgroups.

1. Girls, No Lunch Program
2. Girls, Reduced-Price Lunch Program
3. Girls, Free Lunch Program
4. Boys, No Lunch Program
5. Boys, Reduced-Price Lunch Program
6. Boys, Free Lunch Program

Therefore, six non-repeater subgroups were studied.

The effects of age were examined in relationship to the CSAB total battery readiness score. Primarily, logical significance rather than statistical significance was examined. In other words, if age was related to readiness scores, then logically there should be an increase in total readiness scores as the age of the students increased. As with the previous results, the individual scores on the CSAB total battery of 75 questions served as the basis for these results.

The findings indicated that total battery readiness scores tended to increase as age increased for both boys and girls

in each of the three lunch program subgroups. Figure 6 depicts the general relationship of test scores to age for girls and boys in the three lunch program subgroups. At each grade level, the average or mean score for that age level is plotted in the figure. (In Appendix D, the actual averages for each age level are given in Table D.1.) Within each lunch category, the general trend was the same for girls and for boys, the only difference being that the girls' average age scores tended to be higher than the boys'. As would be expected, for each of the six sex-lunch subgroups, the older first graders had the highest scores; and the younger first graders had the lowest scores. (Refer to Table D.2 in Appendix D.)

For the most part, the difference in the boys' and girls' scores within each lunch subgroup was small. An example occurs at 5 years 10 months for the no lunch subgroup. (Refer to Table D.1 in Appendix D.) For this age, the average score of the no lunch girls was 93; the average score of the no lunch boys was 91. Consequently, there was only a 2 point difference. Although the differences were slight, girls tended to outperform boys within each lunch subgroup. This finding supports the notion that girls developmentally are ahead of boys in the early years, an effect which was slightly evidenced in each of the lunch subgroups.

If age were the only factor accounting for differences in test scores between girls and boys, then girls logically should outperform boys in spite of lunch program status. However, this was not the case in the results. For example, free lunch girls at 5 years 10 months scored 80 in comparison to boys in the no lunch and reduced-lunch groups who scored 91 and 83, respectively. This relationship was observable at all age levels. (Refer to Table D.1 in Appendix D.) Although within subgroups girls scored slightly higher than boys at each age level, across subgroups this relationship did not hold. Therefore, age alone did not seem to account for differences in the readiness of girls and boys, rather, age in combination with other factors which may or may not be related to lunch program perhaps accounted for the differences.

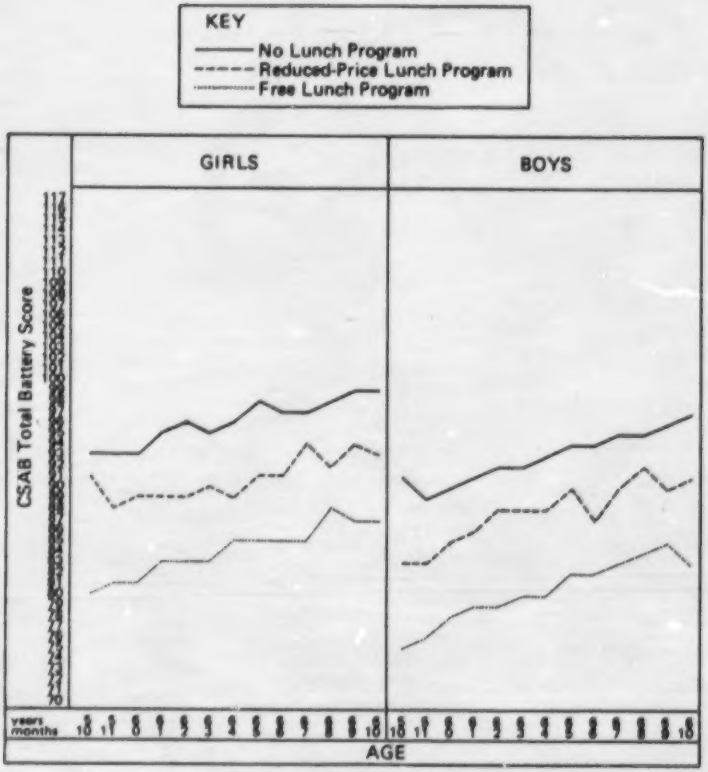

Figure 6

Age-Score Relationships for
Sex and Lunch Subgroups
(Non-Repeaters)
(Ages 5 Years 10 Months to 6 Years 10 Months)

FOLLOW-UP

What Local Educators Thought About the CSAB

After the Fall, 1979, CSAB administration, each of the 585 schools was given the opportunity to share with the Department problems experienced with the testing and suggestions for improving future administrations. Since only 283 questionnaires were returned, the majority of the schools were apparently content with the CSAB and the procedures associated with the testing. From those questionnaires returned, however, several problems emerged that warranted attention.

Most prominent among the problems submitted by the schools was the difficulty teachers experienced in turning the pages of the CSAB Teacher's Administration Manual simultaneously with the CSAB Test Easel. In considering the merger of the teacher's manual and test easel into a single book, the Department ascertained that the financial requirement for such a merger was prohibitive. However, once all revisions of the test are finalized, the consideration of one book will be a priority concern.

Another major problem was that teachers believed that students tested in the afternoon did less well than those tested in the morning because of fatigue. Associated with this problem was the apparent belief that all students must be tested in four days. During the August, 1980, Regional Readiness Pretest Workshops for test coordinators, Department staff emphasized that the Department only requires that all students be tested during the first 15 days of school. Districts are encouraged to do only morning testing where feasible and to allow ample time for testing.

Some of the responses also suggested some misunderstanding on the use of substitute teachers. Although the Department reimbursed districts on a full-day basis, districts could have utilized substitutes on a half-day basis. For example, although a district may have only been awarded eight full

days of substitute teacher salaries, the district may have actually used two substitutes for eight half-days each for purposes of morning testing.

Teachers flatly stated that the transfer and scoring required to determine areas of deficiency should be eliminated because the time required was excessive. In 1980-81 and subsequent years, this scoring will be done by the Department. The teacher will receive a Class Profile Sheet that indicates how each child performed on the objectives and whether or not the child needs additional assistance. Additionally, the Department is generating an Individual Home Report that should be especially useful for parent-teacher conferences.

Several items caused some problems in either the teacher's interpretation of scoring directions or the student's understanding of specific questions. To alleviate these problems, certain changes have been made in the CSAB. For example, one particular question on the CSAB refers to a "ball of wool". Teachers indicated that South Carolina children were not familiar with and did not understand the word "wool". Hence, the test revision has incorporated changing "wool" to "yarn". Also, as a result of school input, the scoring directions for the Vocabulary and Information from Pictures test questions have been clarified.

Generally, the responses to the Fall, 1979, CSAB administration were positive; but some were negative. To provide an idea of typical comments the following verbatim responses are included.

1. "The one-to-one relationship with each child helps to enlighten the teacher more quickly."

2. "The test shows great potential for being a valuable aid for instructional purposes."

3. "Even though it is a time consuming task, I feel that the CSAB test will prove useful if the results are acted upon by the teachers."

4. "The 88 cut-off score is too low."

5. "The 88 cut-off score is too high."

6. "There is too much teacher judgment."

Some very useful comments were submitted by the schools, and the continued evaluation of the CSAB and the administration procedures is encouraged.

What Changes Are Occurring Locally[1]

Introduction

During April and May of 1980, the School Services Section and the Curriculum Development Section (Office of General Education with the assistance of the Management Information Section (Office of Research) conducted a follow-up survey of kindergarten and first grade teachers in 20 school districts. Selection of districts was based on those having 50 percent or more of the first graders "not ready" on the 1979 administration of the Cognitive Skills Assessment Battery (CSAB) first grade readiness test. The purpose of this survey was to assess changes which have occurred in these school districts as a result of the adoption of the Kindergarten Objectives and the administration of the first grade readiness test. Surveyors visited 55 elementary schools and held interviews with 285 kindergarten and first grade teachers.

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[1]With the exception of minor editing modifications, this section was taken verbatim from the report "Findings and Recommendations Related to the Kindergarten Objectives and First Grade Readiness Testing", South Carolina Department of Education, June, 1980.

Kindergarten

Surveyors interviewed 98 kindergarten teachers whose classes encompassed 4,943 pupils. From questions directed to the kindergarten teachers, the interviewers found that 74 percent of the kindergarten teachers were providing instruction in the areas of the 18 Kindergarten Objectives prior to Fall, 1979. Only 31 percent of the teachers said that they altered their planned curriculum for the 1979-80 school year. The majority of these teachers indicated changes were made to eliminate weak areas and to emphasize objectives which had received less attention prior to the adoption of the State Kindergarten Objectives.

Copies of the State Objectives, Reading, Writing, and Mathematics, Grades K-12 were made available to all districts; however, 23 percent of the teachers surveyed indicated that they had not received the publication. Some of these teachers did have copies of the objectives which they had clipped from local newspapers.

Of the teachers interviewed, 81 percent said that they worked cooperatively with other kindergarten teachers in implementing the Kindergarten Objectives. Sixty-two (62) percent of the teachers indicated that they had received assistance from their principals in implementing a program to meet the Kindergarten Objectives. Teachers commented that principals had held meetings with them to discuss objectives and/or test results, had aided the teacher in obtaining specific materials, and were generally supportive of the teachers' efforts to provide a good kindergarten program. Only 37 percent of the teachers indicated that they had received direct assistance from district level personnel. Additionally, 72 percent of the teachers reported that the adoption of the Kindergarten Objectives did not result in the purchase of instructional aids beyond those planned prior to the adoption.

Over half (54 percent) of the teachers interviewed indicated that they did not participate in any inservice relating to the Kindergarten Objectives or the use of the readiness test

results; however, 63 percent of the teachers felt that they needed technical assistance. Some specific areas suggested for inservice included development of materials and activities related to the Kindergarten Objectives, classroom management, student evaluation, and readiness test results utilization.

Thirty-five (35) percent of the teachers said that they did not keep a record of student progress as the Kindergarten Objectives were mastered. Many of these teachers did use some system for evaluating student progress; however, all the objectives were not monitored specifically.

When asked whether they planned to alter the curriculum for next year, half of the teachers who responded indicated that they would and half that they would not. A number of the teachers indicated that they would not be teaching next year for various reasons, and others indicated that they would be teaching at another grade level. The majority of teachers who said they would make some alterations indicated that they would be focusing more on specific areas or objectives than they had in the past.

First Grade

Surveyors interviewed 187 first grade teachers whose classes encompassed 4,687 students. These teachers reported that 2,305 students (49.2 percent) scored "not ready" on the Fall, 1979, administration of the CSAB. At the time of the survey, 76 percent or 1,762 of those students had been phased into the first grade curriculum. These students plus those who initially scored "ready" totaled 4,144 or 88 percent of the first graders in the 20 districts.

Of the first grade teachers interviewed, 16 percent said that they did not have a copy of the State Objectives, Grades K-12. Sixty-two (62) percent of the teachers indicated that the adoption of the Kindergarten Objectives did not cause a change in the planned curriculum for 1979-80. Eighty-three (83) percent did make use of the developmental activities publication provided by the State

Department of Education. Teachers' comments were favorable about the booklet which was designed to offer first grade teachers suggestions of developmental activities which could be used to help children master the Kindergarten Objectives.

Most of the teachers surveyed (87 percent) found the results of the CSAB readiness test to be helpful to them in providing instruction. Many teachers commented that the testing helped them "get to know the children sooner" and to identify weak areas or special needs earlier. Teachers also found that the test results served as a guide for grouping students within their classrooms. The majority (56 percent) of the teachers did keep a record of student progress as students mastered the objectives.

Almost half of the teachers (48 percent) said that they had not participated in any inservice activities related to meeting the Kindergarten Objectives or using the readiness test results; however, 60 percent indicated that technical assistance would be helpful for them. Teachers frequently commented that workshops at which they could develop activities and materials for student use and workshops to help them learn to relate activities and materials to specific objectives would be most beneficial.

Eighty (80) percent of the first grade teachers indicated that they worked cooperatively with the other teachers at their grade level in implementing the objectives. Only 40 percent of the teachers indicated that they had received assistance from district level personnel in implementing a program to meet the objectives or in using the readiness test results; however, 79 percent indicated that their principal had assisted them. Of the teachers responding to the question relating to changes or increases in instructional aids as a result of the readiness testing, only 33 percent said that such changes or increases occurred.

Over half (53 percent) of the first grade teachers indicated that they planned to alter the curriculum for next year be-

cause of the objectives or the testing program. Most of the teachers said that they would put more emphasis on readiness activities to meet the Kindergarten Objectives at the beginning of the school year.

Recommendations

Based on the previous findings, the following recommendations were made.

1. School districts should assess materials currently available in kindergarten and first grade classrooms in terms of quantity and appropriateness for the program and age group.

2. School districts should be certain that all teachers have copies of the State Objectives, Reading, Writing, and Mathematics, Grades K-12.

3. Teachers should be afforded more opportunity to participate in State and local inservice related to their specific needs.

What Locals Are Planning for 1980-81

Several South Carolina districts and schools have done extensive work in planning readiness programs that are geared toward providing students with the developmental skills necessary for the more formal first grade curriculum. These districts and schools have been brought to the attention of Department staff through various channels including on-site Department visits, communication with district curriculum staff, and conversations with school personnel and special project directors. Below are listed several key features found in these programs.

1. Development of materials correlated with the Kindergarten Objectives: first grade basal readers, reports to parents on student progress, and first grade developmental checklists.

2. Ingenious teacher-developed first grade activities that encompass many Kindergarten Objectives, e.g., child creates life-size poster of himself/herself.

3. Concentrated individualized instruction for the lowest scorers on the CSAB through the use of floating aides, Title I Resource Centers, peer tutoring, or other special arrangements.

4. Classroom environments arranged to enhance instruction (In one case, the environment was assessed by using a checklist, and then the teacher was assisted in arranging her classroom.).

5. Numerous exposures to a multimedia environment including activities which extend the child's range of experience.

6. Continuous assessment of the child's progress through observations recorded on a developmental profile (Grades K-3).

7. Continuous communication with parents on the child's progress though individual conferences at the school, telephone conference calls, a series of letters, and/or progress reports.

8. Use of parents as a resource for fostering learning outside of school by provision of: activities to do at home and planned sessions at school on activities such as how to pick out library books.

9. Elimination of double testing with other readiness tests and use of additional testing for only those students who are difficult for the teacher to diagnose.

10. Intensive planning sessions on a weekly basis, in conjunction with a team teaching approach.

11. Administrative support in all areas, including obtaining financial support from local businesses to print readiness activities booklets for parental and classroom use.

These ideas were drawn from district level staff, principals, and first grade teachers in the districts of Anderson 5, Berkeley, Charleston, Colleton, Darlington, Greenwood 50, Greenville, Kershaw, Lexington 3, Orangeburg 5, Richland 1, and Spartanburg 6.

Appendix A

Kindergarten Objectives Identification and Readiness Test Review and Selection Committee

1978-80

Kindergarten Objectives and Readiness Test
Review and Selection Committee

Ms. Betty Addison
Kindergarten Teacher
Bishopville Primary School
Lee County Schools

Dr. Rosemary Althouse
Instructor
Winthrop College

Ms. Emmie Atkinson (member during 1978-79 only)
Assistant Superintendent for Instruction
Marion School District #1

Ms. Elise Blakeley
First Grade Teacher
Saluda Elementary School
Saluda County Schools

Ms. Katherine Brabham
Kindergarten Teacher
Ebinport Elementary School
York School District #3

Ms. Betty Brunson
Kindergarten Teacher
Forest Hills Elementary School
Colleton County Schools

Ms. Hazel Cadle
First Grade Teacher
East Aiken Elementary School
Aiken School District

Ms. Betti Crosby
Primary Coordinator
Hampton School District #1

Kindergarten Objectives and Readiness Test
Review and Selection Committee (continued)

Ms. Phyllis Ford
Early Childhood Education Consultant
South Carolina Department of Education

Dr. Martha Jean Heggins
Instructor
South Carolina State College

Ms. Mary Kelly
Reading Consultant
South Carolina Department of Education

Ms. Dorothy Lewis
First Grade Teacher
Nevitt Forest Elementary School
Anderson School District #5

Ms. Norma Love
First Grade Teacher
Walhalla Elementary School
Oconee County Schools

Ms. Veter Mack
Kindergarten Teacher
Elloree Elementary School
Orangeburg School District #7

Mr. James T. McKim
Coordinator of Elementary Education
Charleston County Schools

Ms. Sally Mullen
Kindergarten Teacher
L. B. Nelson Elementary School
Richland School District #2

Kindergarten Objectives and Readiness Test
Review and Selection Committee (continued)

Ms. Carol Pascua
Principal
Andrews Primary School
Georgetown County Schools

Dr. Bill Quesenbery
Director, Research & Evaluation
Charleston County Schools

Ms. Lynette Smith
First Grade Teacher
Cross Elementary School
Berkeley County Schools

Dr. Kevin Swick
Associate Professor
College of Education
University of South Carolina

Ms. Wanda Vickery
Kindergarten Teacher
Cades-Hebron Elementary School
Williamsburg County Schools

Note: Staff from the Educational Assessment Section (Dr. Vana H. Meredith, Chief Supervisor; Ms. Lynne Mappus, Dr. John M. Finch, and Mr. Roan Garcia-Quintana, Statisticians; and Mr. Terry Helsley, Ms. Terry Siskind, Mr. Lewie Hartley, and Ms. Pamela Kegley, Education Program Specialists) of the Office of Research (Dr. Paul D. Sandifer, Director) coordinated committee activities and served as measurement consultants.

Appendix B

Readiness Tests Reviewed

Readiness Tests Rejected by Department
Based on Preliminary Review*

1. Cognitive Abilities Test, Primary I, published by Houghton Mifflin Company

2. Cooperative Preschool Inventory (Caldwell), published by Addison-Wesley/ Educational Testing Service

3. Detroit Tests of Learning Aptitude, published by Bobbs-Merrill Company, Incorporated

4. First Grade Screening Test, published by American Guidance Services

5. Preschool Attainment Record (PAR), published by American Guidance Services

6. Slosson Oral Reading Test (SORT), published by Slosson Educational Publications

7. System for Teacher Evaluation of Prereading Skills, (STEPS) published by CTB/McGraw-Hill

*Note: The results of the preliminary Department review were presented to the Kindergarten Committee for approval.

Readiness Tests Reviewed
by Kindergarten Committee

1. Boehm Test of Basic Concepts, published by The Psychological Corporation

2. Circus, Level B, published by Addison-Wesley/Educational Testing Service

3. Cognitive Skills Assessment Battery (CSAB), published by Teachers College Press

4. Comprehensive Identification Process, School Readiness Test, and Steinbac Readiness Test, published by Scholastic Testing Service, Incorporated

5. Comprehensive Tests of Basic Skills, Form S, Level A, published by CTB/McGraw-Hill

6. DIAL, published by Childcraft Education Corporation

7. Metropolitan Readiness Test, Level I, published by Harcourt Brace Jovanovich, Incorporated

8. Metropolitan Readiness Test, Level II, published by the Psychological Corporation

9. Prescriptive Reading Inventory, Level I, published by CTB/McGraw-Hill

10. Prescriptive Reading Inventory, Level II, published by CTB/McGraw-Hill

11. SRA Achievement Series, Level A, published by Science Research Associates

Readiness Tests Reviewed
by Kindergarten Committee (continued)

12. SRA Criterion-Referenced Program, Mastery, published by Science Research Associates

13. Visco Child Development Screening Test (The ChilDSTest), published by Educational Activities, Incorporated

14. Yellow Brick Road, published by Teaching Resources Corporation

Appendix C

State Objectives
Grade K

KINDERGARTEN

OBJECTIVE: The student performs tasks involving gross motor skills.

Explanation: The student uses large muscles to coordinate eye-hand movements, eye-foot movements, and body positions in maintaining balance while performing physical activities. Demonstrations of large muscle control include activities **such as** marching; hopping on either foot; skipping; jumping and landing on both feet; galloping; climbing stairs while alternating feet; and bouncing, throwing, catching, and kicking a ball.

OBJECTIVE: The student performs tasks involving fine motor skills.

Explanation: The student uses small muscles to coordinate eye-hand movements and body positions while manipulating objects, tracing, copying, drawing, and painting. Demonstrations of eye-hand coordination include activities **such as** buttoning, zipping, lacing, and tying articles of clothing; folding paper; assembling puzzles; opening a book and turning the pages one at a time from front to back; building with blocks and construction toys; cutting straight and curved lines while holding scissors properly; tracing objects and symbols (for example, finger-tracing in sand or tracing wooden letters and numerals); and copying shapes, letters, own name, words, and numerals.

OBJECTIVE: The student remembers visual stimuli.

Explanation: The student recalls, after a brief lapse of time, stimuli presented visually. (The "brief lapse of time" will vary depending upon the activity.) Demonstration of visual memory involves the student's recalling by pointing to or naming one to six visual stimuli after the stimuli have been presented and removed or covered. Visual stimuli might include colors, shapes, numerals, letters, or patterns.

OBJECTIVE: The student determines likenesses and differences in visual stimuli.

Explanation: The student distinguishes likenesses and differences by comparing visual stimuli. Demonstrations of visual discrimination include activities **such as** matching identical colors; sorting objects on the basis of color; matching identical pictures; selecting the picture that is different; matching identical shapes; sorting objects on the basis of shape; assembling simple puzzles; matching objects of identical sizes; sorting objects on the basis of size; and matching identical symbols (numerals, letters, and words).

OBJECTIVE: The student remembers auditory stimuli.

Explanation: The student recalls, after a brief lapse of time, stimuli presented auditorily. (The "brief lapse of time" will vary depending upon the activity.) Stimuli might include sounds made by animals, people, or objects and sound patterns. Demonstrations of auditory memory include activities **such as** repeating sounds made by animals, objects and people; repeating rhythmic sequences; counting from 1 to 10 by rote; and repeating nursery rhymes, fingerplays, poems, and songs.

OBJECTIVE: The student determines likenesses and differences in auditory stimuli.

Explanation: The student distinguishes likenesses and differences by comparing sounds. Demonstrations of auditory discrimination include activities **such as** matching sounds made by objects, animals, or people; matching sounds according to rhythmic pattern, pitch

(high-low), or volume (loud-soft); recognizing words that sound the same (for example, "dog" and "dog") and words that sound different (for example, "dog" and "doll"); matching words that rhyme (for example, "cat," "bat," and "mat"); and matching sounds at the beginning of words (for example, "boy," "ball," and "book").

OBJECTIVE: The student communicates with others by using expressive language.

Explanation: The student communicates with others by using a simple oral vocabulary and by expressing ideas with an expanding oral vocabulary. Vocabulary development may include naming such things as colors, parts of the body, people, animals, foods, objects, sounds, days of the week, seasons, occupations, letters, numerals, coins, and textures. Demonstrations of expression of ideas include activities **such as** initiating verbal communication with others, relating personal experiences to classroom activities, and dictating personal experiences for teacher's recording in a written form.

OBJECTIVE: The student is receptive of language in communicating with others.

Explanation: The student communicates with others by listening attentively and by utilizing the information presented. Demonstrations of receptive language include activities **such as** listening and responding to the conversations of others; listening to and making comments about a selection read; and listening to and following directions.

OBJECTIVE: The student expresses an interest in language.

Explanation: The student seeks out information or initiates actions related to words or books. Demonstrations of an interest in language include behaviors **such as** asking the meaning of words; asking to have a story read; looking at pictures in books; and sharing books with the class.

OBJECTIVE: The student classifies stimuli on the basis of one or more attribute(s).

Explanation: In order to be able to classify, the student must first recognize similarities in stimuli (**such as** objects) with respect to some attribute or characteristic (**such as** size). The student must then group the stimuli according to one or more attribute(s). Demonstrations of classification include activities **such as** classifying objects according to color, size, or shape and classifying by functions and/or relationships such things as objects, foods, animals, or people.

OBJECTIVE: The student compares stimuli on the basis of one or more attribute(s).

Explanation: In order to be able to compare, the student must first recognize similarities and differences in stimuli (**such as** objects) with respect to some attribute or characteristic (**such as** size). The student must then compare the stimuli according to one or more attribute(s). Demonstrations of comparison include activities **such as** comparing two groups of objects using the terms more than, less than, or same as; comparing two objects according to length, height, weight, size, shape, or distance; comparing opposites or positions (for example, behind/in front of, between/ beside, above/below).

OBJECTIVE: The student sequences stimuli on the basis of one or more attribute(s).

Explanation: In order to be able to sequence, the student must first recognize differences in stimuli (**such as** objects) with respect to some attribute or characteristic (**such as** size). The student must then order the stimuli according to one or more attribute(s). Demonstrations

of sequencing include activities such as counting up to ten objects; ordering objects according to length, height, weight, or size; identifying the correct object to complete the pattern; completing an incomplete pattern or picture; retelling a short story in sequential order; arranging in correct order three pictures; and stating the sequential steps involved after completing a three-step activity.

OBJECTIVE: The student begins to understand the concept of conservation of number.

Explanation: The student recognizes that a group has the same number of objects regardless of the arrangement of the objects. Demonstrations of conservation of number involves the teacher presenting the student with five to ten objects and asking the student to count the objects. After the student counts the number of objects correctly, the teacher rearranges the objects and asks, "How many objects are there?" A student who responds, without recounting, that the number of objects is the same understands conservation of number.

OBJECTIVE: The student interprets and infers on the basis of oral or illustrative selections.

Explanation: The student demonstrates understanding of selections, for example, stories presented orally or in picture form, by interpreting or making inferences on the basis of the selection. The student interprets selections by summarizing what has been seen or heard. The student makes inferences by going beyond the content of the selection. Demonstrations of interpretation and inference include activities such as listening to a selection, expressing the main idea, and making inferences; supplying a logical ending to a story after being presented with only two-thirds of the story; supplying appropriate answer(s) to questions on the basis of context clues; and making up a story about a picture.

OBJECTIVE: The student controls emotions and expresses them in a socially acceptable manner.

Explanation: The student exhibits the ability to control and express emotions by appropriate use of words or actions. Demonstrations of self-control include behaviors such as expressing feelings or needs in a controlled and constructive manner; accepting socially imposed limits; and adjusting to changes in routine.

OBJECTIVE: The student displays a positive attitude toward self.

Explanation: The student exhibits a positive self-concept through favorable actions and words concerning self. Demonstrations of positive self-concept include behaviors such as taking finished work home; asking to have work displayed; showing work to others; working independently and asking for help from others when needed; completing tasks, tidying up after self; taking responsibility for personal belongings; and developing independent personal hygiene habits.

OBJECTIVE: The student displays a positive attitude toward school.

Explanation: The student exhibits a positive feeling about school through favorable actions and words concerning school. Demonstrations of a positive attitude toward school include behaviors such as using materials correctly and participating voluntarily in a wide variety of classroom activities.

OBJECTIVE: The student interacts with others in a socially acceptable manner.

Explanation: The student cooperates with others by being considerate of and sensitive to their needs. Demonstrations of appropriate school interaction include behaviors such as sharing materials; listening to ideas and opinions; respecting the property of others; and reacting positively toward the achievements of others.

Appendix D

Average CSAB Battery Total Scores
by Age Level for Sex and Lunch Program
Subgroups

Table D.1

Average (Mean) Scores by
Age Level for Sex and Lunch Program Subgroups

Non-Repeaters[a]

Age	No Lunch		Reduced Lunch		Free Lunch	
	Boys	Girls	Boys	Girls	Boys	Girls
5 yrs. 10 mos.	91	93	83	91	75	80
5 yrs. 11 mos.	89	93	83	88	76	81
6 yrs. 0 mos.	90	93	85	89	78	81
6 yrs. 1 mos.	91	95	86	89	79	83
6 yrs. 2 mos.	92	96	88	89	79	83
6 yrs. 3 mos.	92	95	88	90	80	83
6 yrs. 4 mos.	93	96	88	89	80	85
6 yrs. 5 mos.	94	98	90	91	82	85
6 yrs. 6 mos.	94	97	87	91	82	85
6 yrs. 7 mos.	95	97	90	94	83	85
6 yrs. 8 mos.	95	98	92	92	84	88
6 yrs. 9 mos.	96	99	90	94	85	87
6 yrs. 10 mos.	97	99	91	93	83	87

[a]These figures were calculated on non-repeaters ranging in age from 5 years 10 months to 6 years 10 months.

Table D.2

Ranges of Average (Mean) Scores for the Sex and Lunch Subgroups by Age Level

Non-Repeaters[a]

Subgroups	Younger Children		Older Children	
	Age[b]	Lowest Score	Age[b]	Highest Score
Girls				
No Lunch	5 yrs. 10 mos.	93	6 yrs. 9 mos.	99
Reduced Lunch	5 yrs. 11 mos.	88	6 yrs. 7 mos.	94
Free Lunch	5 yrs. 10 mos.	80	6 yrs. 8 mos.	88
Boys				
No Lunch	5 yrs. 11 mos.	89	6 yrs. 10 mos.	97
Reduced Lunch	5 yrs. 10 mos.	83	6 yrs. 8 mos.	92
Free Lunch	5 yrs. 10 mos.	75	6 yrs. 9 mos.	85

[a]These figures were calculated on non-repeaters ranging in age from 5 years 10 months to 6 years 10 months.

[b]This age is the age at which the lowest or highest score first appeared.

Appendix E

Interview Questions and Results from Survey of Kindergarten and First Grade Teachers

Interview Questions - Kindergarten

Questions	Response in Percentages[a]		
	Yes	No	Not Applicable Or No Response
1. Did the adoption of the kindergarten objectives alter the planned curriculum for your class during 1979-80?	31	64	5
2. Were you providing instruction to meet the 18 kindergarten objectives prior to the readiness testing?	74	10	15
3. Do you have a copy of the State Objectives, Grades K-12?	77	23	--
4. Did the adoption of the kindergarten objectives result in the purchase of additional instructional aids (visuals, games, activities, etc.) which were not planned prior to this adoption?	24	73	2
5. Did you work with the other kindergarten or grade level teachers in implementing the approved objectives for this grade?	81	19	--
6. Has the principal assisted you in implementing a program to meet the objectives and/or to use the results of the readiness test?	62	36	2
7. Did the district level personnel assist you in impelementing a program to meet the kindergarten objectives and/or to use the results of the readiness test?	37	63	--
8. Did you participate in any inservice activity on meeting the kindergarten objectives and/or using the readiness test results.	46	54	--
9. Do you need technical assistance in implementing the kindergarten objectives to a greater degree and/or in using the results of the readiness test?	63	36	1
10. Do you keep a record of the students' progress as they master the kindergarten objectives?	60	35	5
11. Do you have plans to alter the curriculum for next year because of the new state objectives and testing program?	45	45	10

Interview Questions - First Grade

Questions	Response in Percentages[a]		
	Yes	No	Not Applicable Or No Response
1. Did the adoption of the kindergarten objectives alter the planned curriculum for your class during 1979-80?	36	62	2
2. Do you have a copy of the State Objectives, Grades K-12?	82	16	2
3. Did the adoption of the kindergarten objectives result in the purchase of additional instructional aids (visuals, games, activities, etc.) which were not planned prior to this adoption?	19	72	9
4. Did you work with the other kindergarten or grade level teachers in implementing the approved objectives for this grade?	80	19	--
5. Has the principal assisted you in implementing a program to meet the objectives and/or to use the results of the readiness test?	79	21	1
6. Did the district level personnel assist you in implementing a program to meet the kindergarten objectives and/or to use the results of the readiness test?	40	60	--
7. Did you participate in any inservice activity on meeting the kindergarten objectives and/or using the readiness test results?	50	48	2
8. Do you need technical assistance in implementing the kindergarten objectives to a greater degree and/or in using the results of the readiness test?	60	40	1
9. Do you feel the results from the readiness testing assisted you in providing instruction?	87	13	--
10. Did the results of the readiness test cause any changes or increase in instructional aids (visuals, games, activities, etc.)?	33	60	6

Interview Questions - First Grade (continued)

Questions	Response in Percentages[a]		
	Yes	No	Not Applicable Or No Response
11. Did you use the developmental activities provided by the State Department of Education?	83	16	1
12. Do you keep a record of the students' progress as they master the kindergarten objectives?	56	42	2
13. Do you have plans to alter the curriculum for next year because of the new State Objectives and testing program?	53	43	3
14. Did you phase any of your students into the first grade curriculum?	94	6	--
			Total Response
15. How many first graders in your class scored "not ready"?			2,305
16. How many of your students have been phased into the first grade curriculum?			1,762

[a]Sum of responses may not add to 100 due to rounding.

Appendix F

South Carolina Department of Education
Publications on
the Basic Skills Assessment Program

Current Publications

1. Learning Through Play: A Guide for Parents of 3-, 4-, or 5-Year Olds, South Carolina Department of Education, 1980.

   This publication contains developmental activities keyed to the 18 State Kindergarten Objectives. The activities were designed specifically for the parents of 3-, 4-, or 5-year olds and can easily be done at home.

2. Ready or Not: A Report on the 1979 Statewide Readiness Test Administration and Results, Educational Assessment Section, Office of Research, South Carolina Department of Education, October, 1980.

   This publication presents the interpretive information, along with the first year results of the 1979 Statewide Readiness Test Administration. Information on instructional implications and local reactions to the first year administration are also included.

3. Report on the Implementation of the Basic Skills Assessment Program, 1978-79, South Carolina Department of Education, December, 1979.

   This publication is a report to the legislature on the progress the Department is making in its effort to comply with the Basic Skills Assessment Program Legislation.

4. State Objectives, Reading, Writing, and Mathematics, Grades K-12, South Carolina Department of Education, September, 1979.

   This publication contains a listing of the 18 Kindergarten Objectives with their accompanying explanations and the 16 Basic Skills Objectives for Reading, Writing, and Mathematics with their accompanying measurement strategies.

Current Publications (continued)

5. The Rainbow Book for First Grade, Curriculum Development Section, Office of General Education, South Carolina Department of Education, 1980.

   This publication contains developmental activities based on the 18 State Kindergarten Objectives. The activities were written specifically for first grade teachers to use with first graders in bringing them into the formal curriculum as learning and maturity dictate.

Forthcoming Publications

1. A South Carolina word list containing a by-grade-level listing of the words used in developing the Basic Skills Assessment Program Tests in Reading, Writing, and Mathematics.

2. A resource for teachers on how the 16 State Basic Skills Objectives were expanded for test development and instructional purposes, including sample test items and instructional considerations.

3. A report to the legislature on the 1979-80 implementation of the Basic Skills Assessment Program.

4. A book of activities keyed to the 18 State Kindergarten Objectives for use by kindergarten teachers.